So What Do the Numbers Really Mean?

Mt. Vernon PDD

Rick Hurley, Management Concepts

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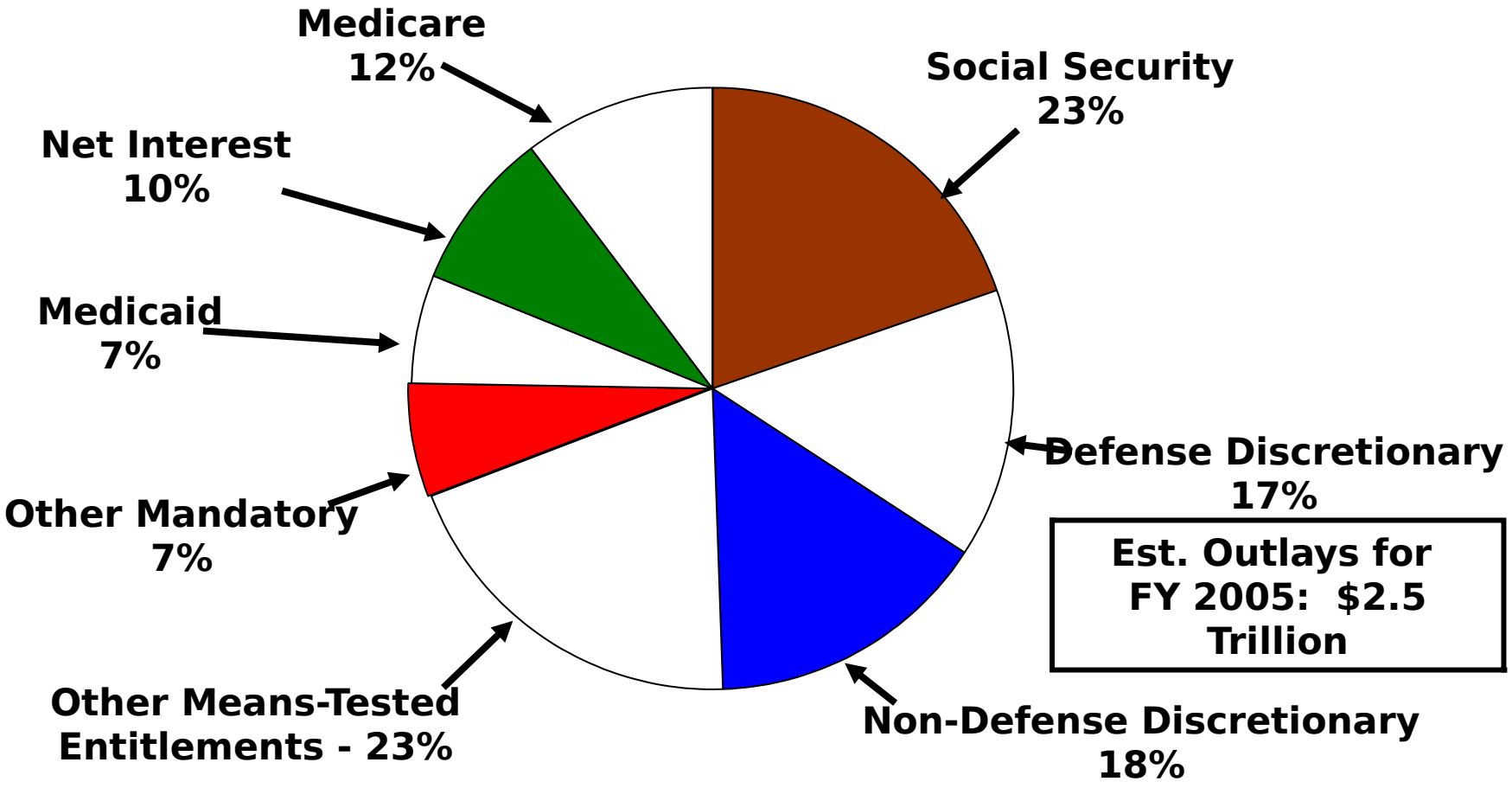
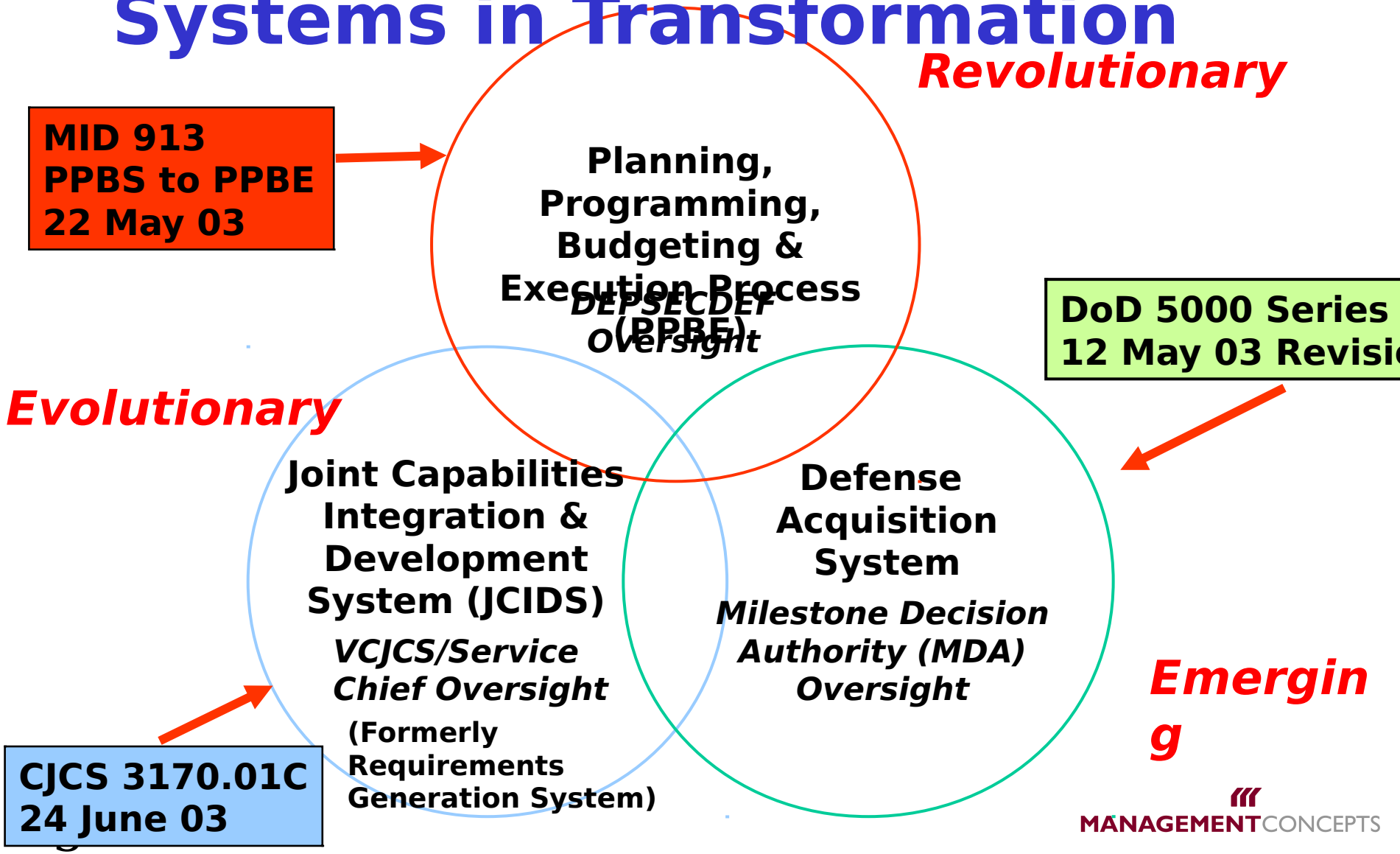
MANAGEMENTCONCEPTS

The President's Budget: Spending



MANAGEMENTCONCEPTS

Acquisition Decision Support Systems in Transformation



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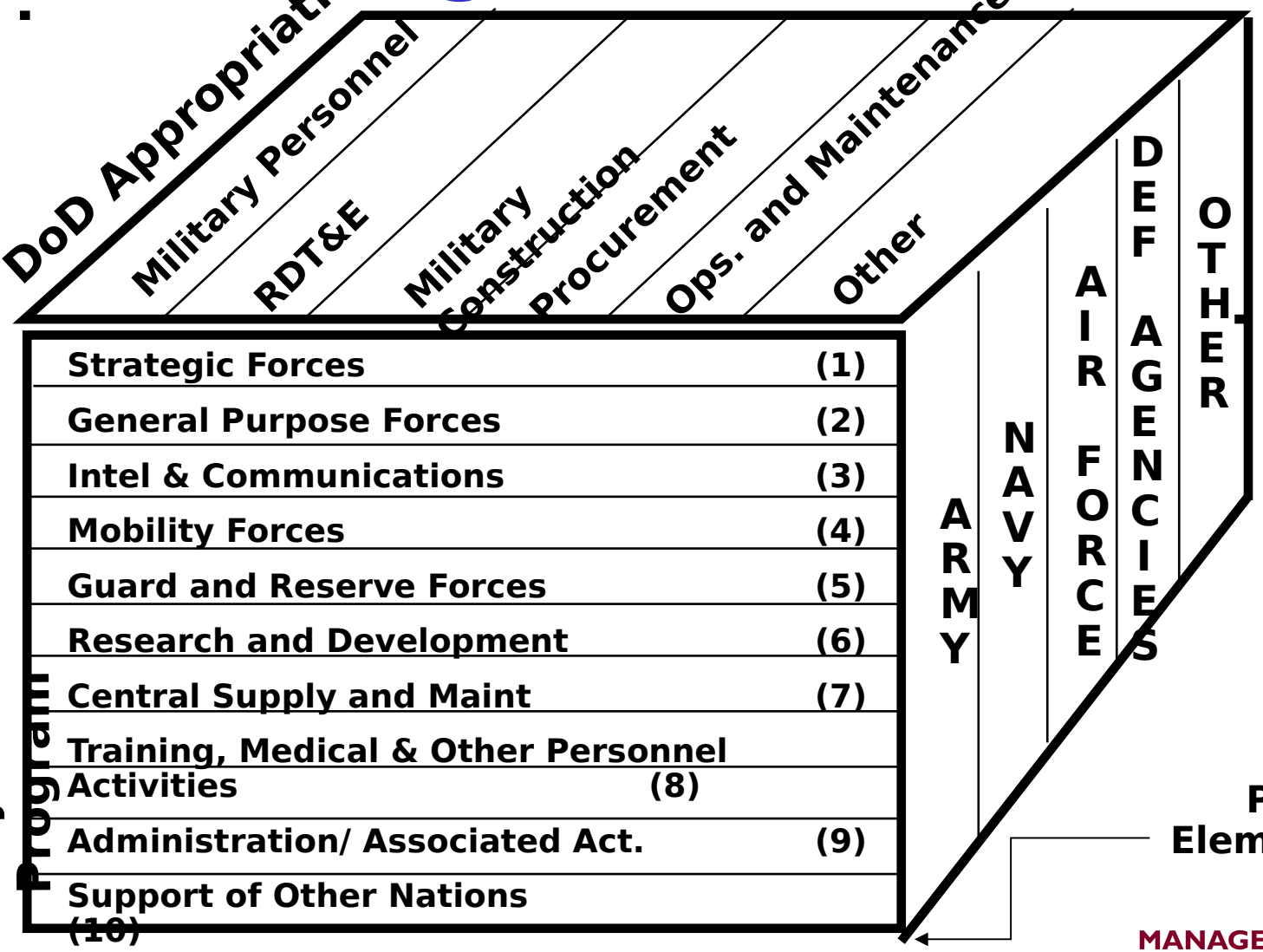
FYDP Program Structure



MANAGEMENTCONCEPTS

Economic Analysis vs. Cost Analysis

- Economic Analysis (EA)
- greater than $1 million
- systematic approach to selecting financially superior alternative
- consider full life cycle and Life Cycle Costs
- Part of business case
- Considers benefits, NPV analysis, Time Value of $$

- Cost Analysis
- We do more informal cost analysis for all programs
- All EA requires cost analysis as a component

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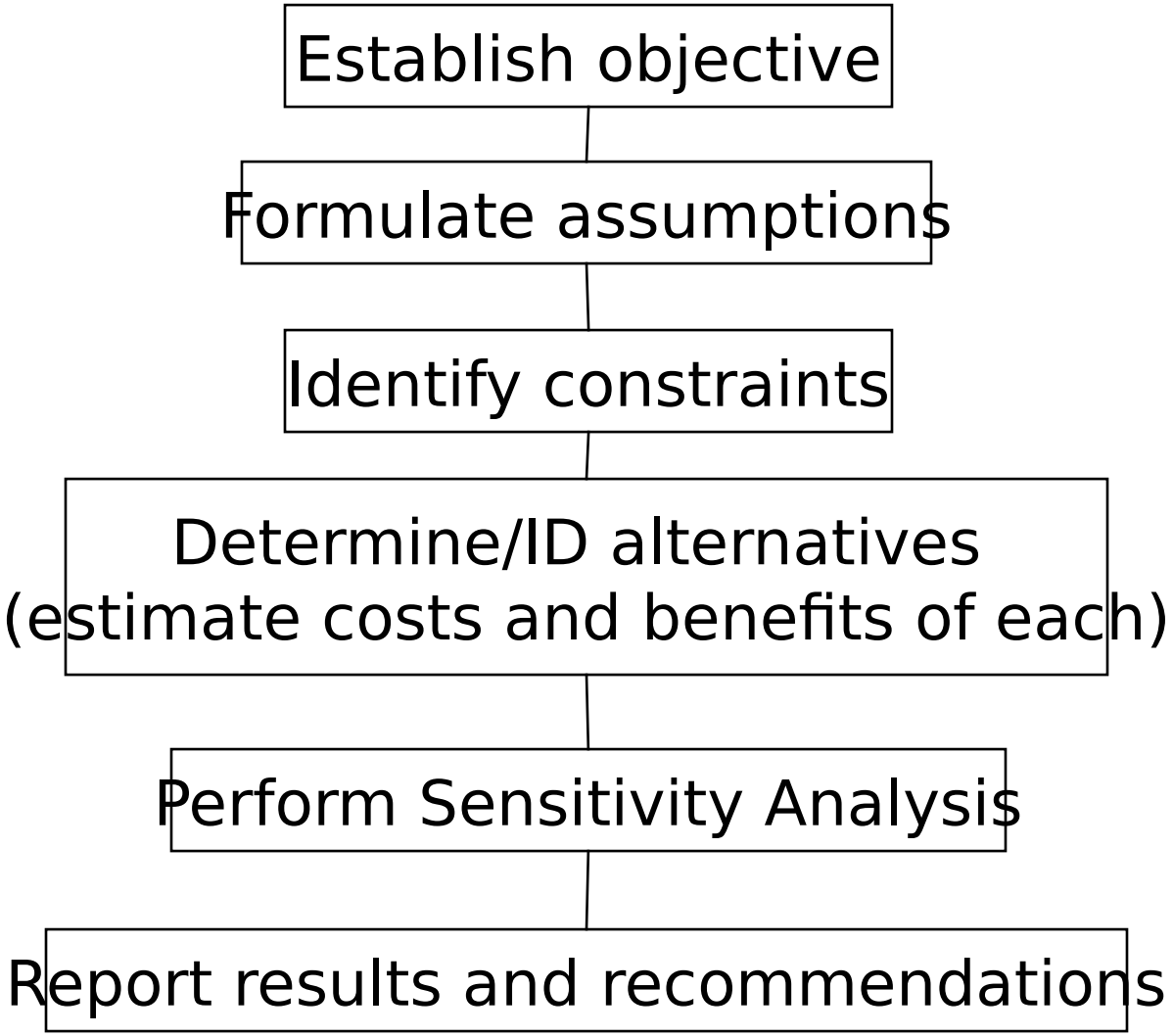
Economic Analysis Model



MANAGEMENTCONCEPTS

Net Present Value Analysis

- Discounts all future dollar benefit streams over all future discounted cost streams
- Discount factors are provided in model or A-94 (cost benefit analysis)
- Want NPV greater than zero

NPV=PV(Future Benefits)- PV(Future Costs)re

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Discount Rates and Sample Discount Factors

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Years Since Inflation, Renewal, or Expansion	Expected Yearly Cost	Expected Yearly Benefit	Discount Factors @ 4.5%	PV of Costs	PV of Benefits
1	$10.00	$0.00	0.9782		
2	$20.00	0.00	0.9361		
3	$30.00	35.00	0.8958		
4	$30.00	50.00	0.8572		
5	$10.00	75.00	0.8203		
			Total		

Net Present Value = Total PV Benefits minus Total PV Costs equal

MANAGEMENTCONCEPTS

Program Assessment Rating Tool (PART)

- Measure and evaluate program performance
  - Using common measures
  - Full cost budgeting, and
  - In terms of GPRA
- Four Program Rating Categories
  - Purpose
  - Planning
  - Management
  - Results/Accountability

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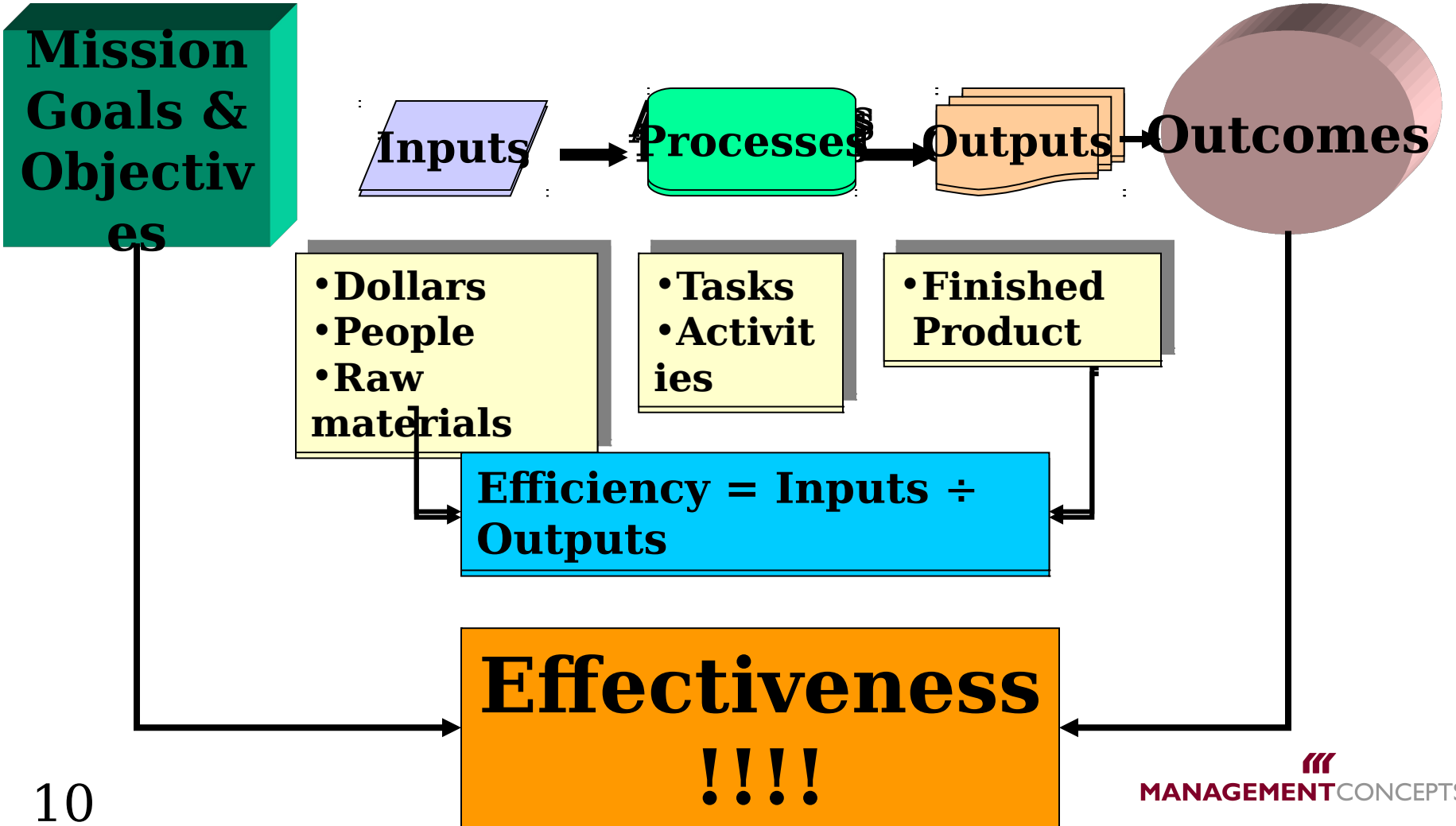
Outcomes Emphasis (with the "E" measures)



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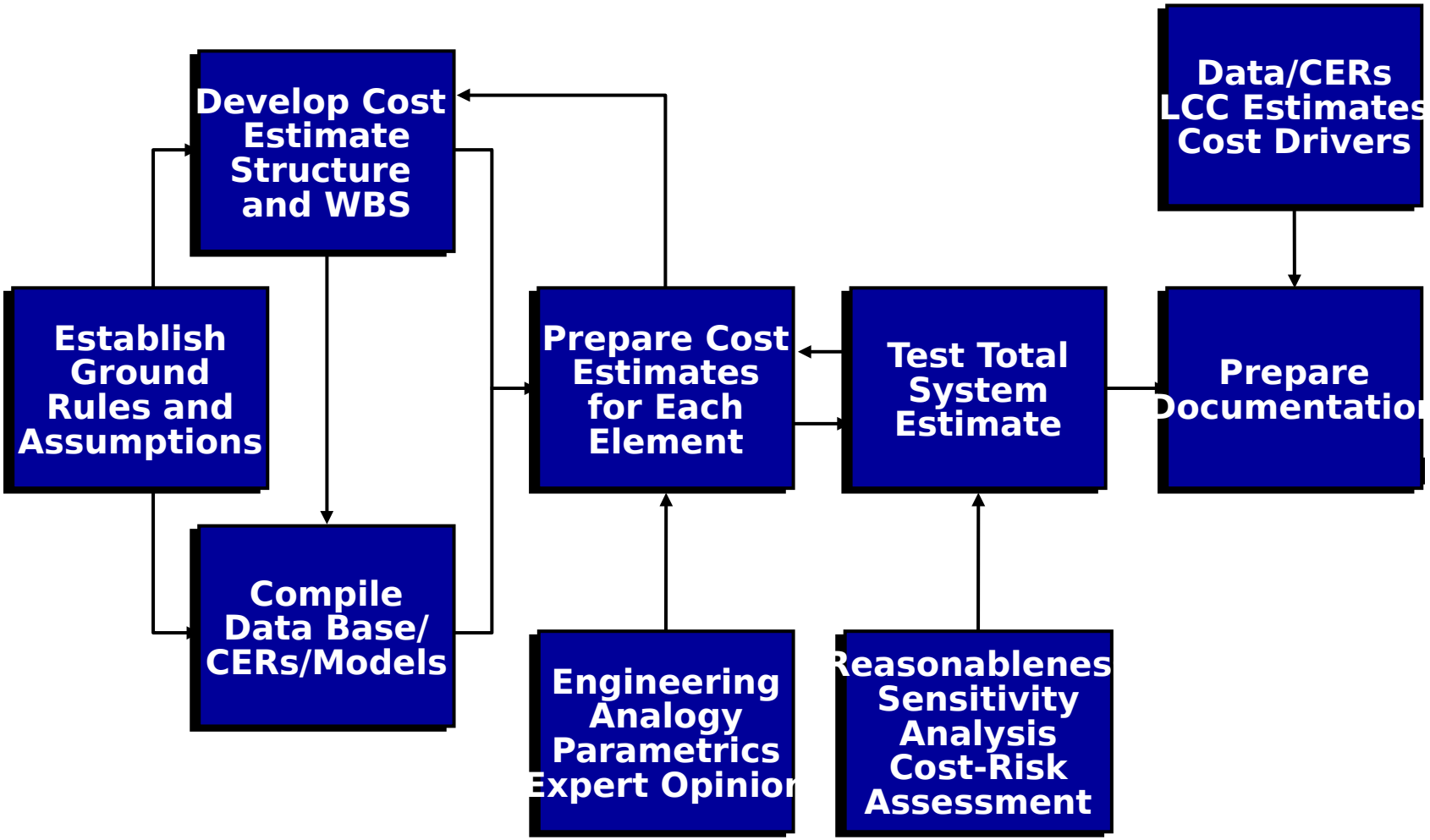
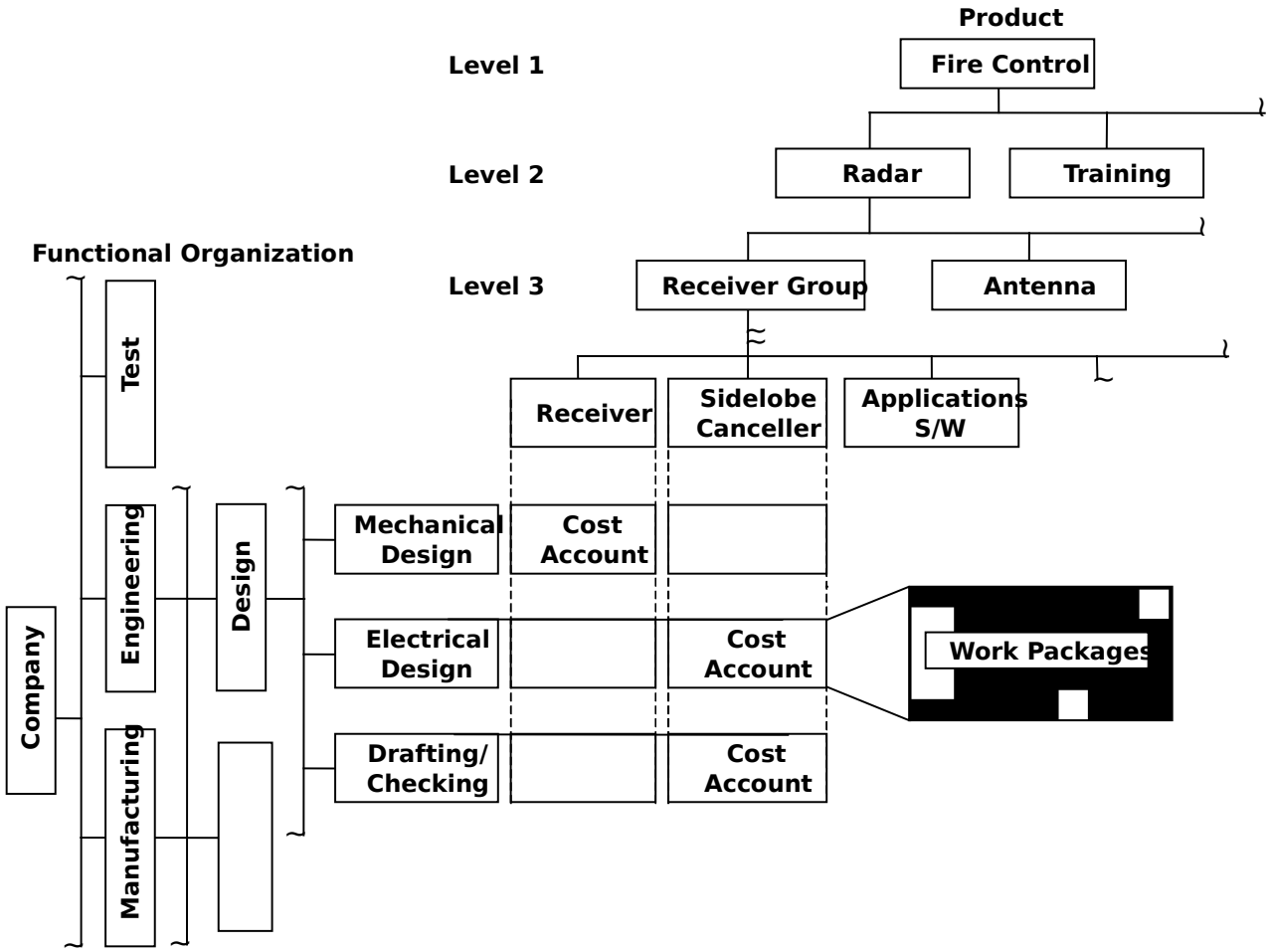
Cost Analysis Model


Develop Cost Estimate Structure and WBS
Data/CERs LCC Estimates Cost Drivers
Establish Ground Rules and Assumptions
Prepare Cost Estimates for Each Element
Test Total System Estimate
Prepare Documentation
Compile Data Base/ CERs/Models
Engineering Analogy Parametrics Expert Opinion
Reasonableness Sensitivity Analysis Cost-Risk Assessment

Work Breakdown Structure



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Cost Estimating (CE) Methods

- Analogy
  - Major characteristics
    - based on comparison with historical information of similar existing activities, systems, or components
    - compares new system with existing similar system(s) where there is accurate cost and technical data
  - Strengths
    - ??
  - Weaknesses
    - ??

MANAGEMENTCONCEPTS

Cost Estimating (CE) Methods, continued

- Parametric (Top-Down Method)
  - Major characteristics
    - based on physical attributes or performance characteristics and their relationships to highly aggregated component costs
    - uses database of elements from similar systems
  - Strengths
    - ??
  - Weaknesses
    - ??

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Cost Estimating (CE) Methods, continued

- Engineering (Bottom-Up Method)
  - Major characteristics
    - very detailed
    - each WBS is costed to build the cost estimate for the entire program
  - Strengths
    - ??
  - Weaknesses
    - ??

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Cost Estimating (CE) Methods, continued

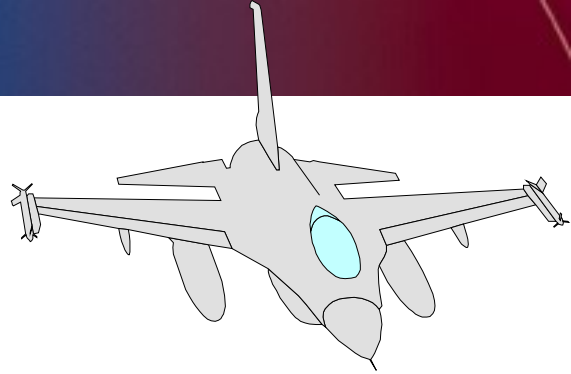
- Expert Opinion
  - Major characteristics
    - subjective judgment of an experienced individual or group
    - document source(s) of opinion of experts
    - list attributes of the source(s)
    - seek convergence with Delphi Technique
  - Strengths
    - ??
  - Weaknesses
    - ??

MANAGEMENTCONCEPTS

Incremental Funding

- Applies to research and development and all one year appropriations
- Annual budget request will be limited to budget authority necessary to cover all costs
  - expected to be incurred during that fiscal year
- Policy provides flexibility to the govt in the uncertain environment of RDT&E
  - reduces financial exposure and risk!

Full Funding



- Budget must identify all funds/costs required over several years to deliver a useable end-item of equipment
- Applies to procurement and construction accounts
- Congressional direction requires full funding with single year's budget authority
- Funded delivery period - 12 month period starting with delivery of first item
- OMB now requires all capital budgets to be fully funded
  - Why is OMB now insisting on this policy?

Multi-year Procurement

- Commitment to buy a specific quantity of useable end items of a weapon system over a specified number of years
  - normally, maximum of five years
- Contract funded over several years
- Purpose:
  - to reduce program cost
  - to counteract adverse effects of the annual budget and procurement process
  - to bring stability to acquisition process

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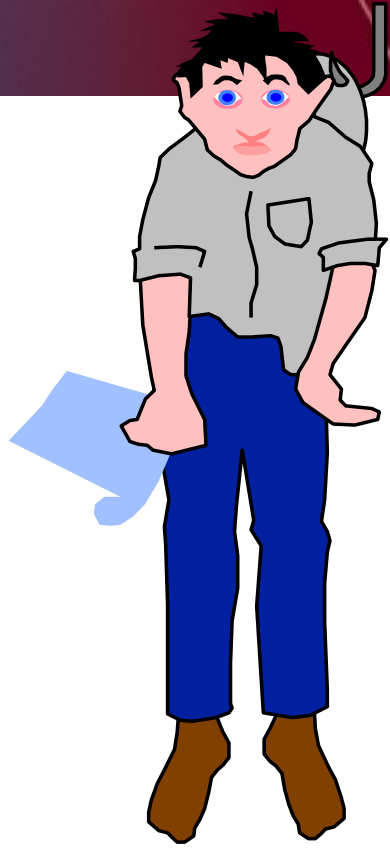
Multi-year Procurement Criteria



- Significant savings compared to annual buys
- Stable requirements
- Stable design
- Confidence in cost estimates
- Confidence in contractor's ability to produce
- Commitment to funding by Service, OSD and Congress for current and outyears
  - "on the hook" for the future year BA